



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/002,076	11/01/2001	Wesley T.K. Bischel	A148 1590.1	3600

7590 02/25/2003  
Womble Carlyle Sandridge & Rice, PLLC  
P.O. Box 7037  
Atlanta, GA 30357-0037

EXAMINER

PAYNE, SHARON E

ART UNIT	PAPER NUMBER
----------	--------------

2875

DATE MAILED: 02/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/002,076

Applicant(s)

BISCHEL ET AL.

Examiner

Sharon E. Payne

Art Unit

2875

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 26 December 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 2 and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Jackson (U.S. Patent 6,389,766).

Regarding claim 1, Jackson discloses a device for increasing the strength of spanning structural lumber. The device includes a main beam (Fig. 1), at least a first standoff connected to and projecting from the main beam (Fig. 1), and a first electrifiable cable anchored to the main beam near the ends of the main beam and extending over the standoff (Fig. 1, abstract), the cable substantially spanning the length of and providing support to the main beam (Fig. 1). Please note that a steel cable (steel strap) is electrifiable.

Concerning claim 2, Jackson discloses the cable being anchored at the ends of the main beam (Fig. 1).

Regarding claim 12, Jackson discloses that the cable is tensioned (abstract).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jackson in view of Perrin (GB 2,174,430A).

Regarding claim 3, Jackson does not disclose a main beam with a "T" profile. Perrin discloses a main beam with a "T" profile (Fig. 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the beam of Perrin in the apparatus of Jackson to provide a stronger beam.

6. Claims 4, 5, 7, 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jackson in view of Mauer (U.S. Patent 5,025,357).

Regarding claim 4, Jackson does not disclose a lamp attached to the cable. Mauer discloses a lamp (reference number 18) attached to the cable (lead in wire, reference number 2).

It would have been obvious to one of ordinary skill in the art to use the cables of Mauer in the apparatus of Jackson to hang a lamp from the suspended ceiling element.

Concerning claim 5, Jackson does not disclose a low voltage light fixture. Maurer discloses the lamp (reference number 18) comprising a low voltage light fixture (abstract).

Regarding claim 7, Jackson does not disclose a lamp attached to the first and second cable. Maurer discloses a lamp (reference number 18) attached to the first cable (reference number 2) and the second cable (reference number 4).

Concerning claim 8, Jackson does not disclose a second standoff (reference number 38) connected to and projecting from the main beam, a second cable or the lamp.

Maurer discloses a second electrifiable cable (reference number 4) that is substantially parallel to the first cable (reference number 2) and electrically isolated from the first cable (column 1, lines 66-68). Maurer also discloses a lamp (reference number 18) attached to the first and second substantially parallel cables (Fig. 5).

Attaching a second standoff to the main beam so that it projects from the main beam and is spaced apart from the first standoff is considered to be an obvious duplication of parts. Since the standoff is well known in the art, it would have been

Art Unit: 2875

obvious to one of ordinary skill in the art to use a second standoff to space the cable from the main beam at a second point.

Attaching the second electrifiable cable to the first and second standoffs is considered to be an obvious variation in design. In Jackson, one cable is already connected to a standoff. It would have been obvious to one of ordinary skill in the art to attach the second cable in the Jackson reference for providing additional support.

It would have been obvious to one of ordinary skill in the art to use the cables of Maurer in the Jackson apparatus for providing electricity to the lamp.

Regarding claim 9, Jackson does not disclose a power supply. Maurer discloses a power supply (reference number 10) electrically coupled to the cable (Fig. 1).

7. Claims 6 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jackson.

Regarding claim 6, Jackson does not disclose a second standoff connected to and projecting from the main beam or a second cable anchored near the ends of the main beam and extending over the second standoff, the second cable being substantially parallel to the first cable and substantially spanning the length of and providing support to the main beam.

Providing a second standoff and a second cable as described in the claim is considered to be an obvious duplication of parts. It would have been obvious to one of ordinary skill in the art to provide a second standoff and a second cable in the Jackson reference like the first cable for providing additional support to the main beam.

Concerning claim 11, Jackson does not specifically disclose a 12-foot main beam. Making the main beam 12 feet long is considered to be an obvious variation in

Art Unit: 2875

design. It would have been obvious to one of ordinary skill in the art to decide the length of the main beam in the Jackson reference to satisfy building requirements.

8. Claim 10 rejected under 35 U.S.C. 103(a) as being unpatentable over Jackson and Maurer as applied to claim 9 above, and further in view of Guth, Jr. (U.S. Patent 3,683,173).

Regarding claim 10, Jackson does not disclose a transformer. Guth, Jr. discloses a transformer electrically connected to the electrified cable (column 2, lines 36-42).

It would have been obvious to one of ordinary skill in the art to use a transformer in the Jackson reference to vary the voltage in the circuit.

9. Claims 13, 14 and 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jackson in view of Claussen et al. (U.S. Patent 4,109,305).

Regarding claim 13, Jackson does not disclose the main beam supporting a plurality of ceiling panels. Claussen et al. discloses the main beam (suspension system, reference number 2) further supporting a plurality of ceiling panels (reference number 6).

It would have been obvious to one of ordinary skill in the art to add the ceiling panels of Claussen et al. to the structure of Jackson for forming a ceiling in a room.

Concerning claim 14, Jackson discloses a truss assembly having a main beam (Fig. 1), at least one standoff support connected to and projecting from the main beam (blocks 10 and 11, Fig. 8), and an electrifiable cable (abstract) in communication with the standoff and substantially spanning the length of the main beam (Fig. 1). Please

Art Unit: 2875

note that a steel strap is an electrifiable cable. Jackson does not disclose a plurality of truss assemblies as described above, the cross beams or the ceiling panel.

Claussen discloses a plurality of cross beams (reference number 4) running substantially perpendicular to and in communication with the main beam to form a grid (Fig. 1) and a ceiling panel supported by the grid (reference number 6).

Providing a plurality of truss assemblies is considered to be an obvious duplication of parts. It would have been obvious to one of ordinary skill in the art to provide a plurality of the truss assemblies disclosed in the Jackson reference to support a ceiling.

Concerning claim 16, Jackson does not disclose a lamp attached to the cable. Claussen et al. discloses a lamp (reference number 24) attached to the cable (Fig. 1).

Regarding claim 17, Jackson discloses a truss assembly having a main beam (Fig. 1), at least one standoff support connected to and projecting from the main beam (blocks 10 and 11, Fig. 8), and an electrifiable cable (abstract) in communication with the standoff and substantially spanning the length of the main beam (Fig. 1). Jackson does not disclose a plurality of truss assemblies as described above or the plank elements.

Claussen et al. discloses a plurality of plank elements (reference numbers 4 and 8) spanning between the main beams (reference number 2).

Providing a plurality of truss assemblies is considered to be an obvious duplication of parts. It would have been obvious to one of ordinary skill in the art to provide a plurality of the truss assemblies disclosed in the Jackson reference to support a ceiling.



Art Unit: 2875

Regarding claim 18, Jackson does not disclose the plank elements being made of metal. Using metal as a ceiling support is well known in the art. It would have been obvious to one of ordinary skill in the art to use metal for the planks in the Jackson reference.

Concerning claim 19, Jackson does not disclose a lamp attached to the cable. Claussen et al. discloses a lamp (reference number 24) attached to the cable (Fig. 1).

10. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jackson and Claussen et al. as applied to claim 14 above, and further in view of Halchuck (U.S. Patent 6,079,177).

Regarding claim 15, Jackson does not disclose the composition of the ceiling panel. Halchuck discloses a ceiling panel comprising fiberglass (column 2, lines 57-61).

It would have been obvious to one of ordinary skill in the art to use the fiberglass of Halchuck in the apparatus of Jackson to form the ceiling panels.

### ***Response to Arguments***

11. Applicant's arguments with respect to claims 1-19 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

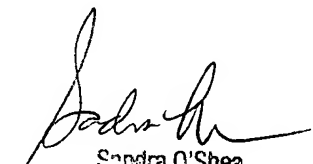
12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharon E. Payne whose telephone number is (703) 308-2125. The examiner can normally be reached on regular business hours.

Art Unit: 2875

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (703) 305-4939. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

sep  
February 13, 2003

  
Sandra O'Shea  
Supervisory Patent Examiner  
Technology Center 2800